



The Renovator

A Pentagon Renovation Construction Newsletter



US Army Corps
of Engineers
Baltimore District

Volume 3, Number 2

February 1996

Phase II begins

Coordination the key to River Terrace renovation

Construction activity on River Terrace significantly increased in January as the second phase of the River Terrace waterproofing and repair began. Phase I work is nearing completion, so the construction area has expanded to include approximately two-thirds of the parking area.

Expansion into the parking area meant several temporary changes were necessary, but day-to-day operations are not affected. Pedestrian access to and from the River Terrace is maintained by a walkway, and some parking remains in the future Phase III area. Other parking was temporarily relocated to a nearby area.

Building support

Preparations for Phase II meant extensive coordination for the renovation office, particularly the basement field office.

Arrangements for parking and notification were facilitated through Marcia Stump, WHS, Real Estate and Facilities Management, and Defense Protective Services.

The OSD protocol office and tenants adjacent to the work area were also consulted about the second phase. "The success we've had in staging this second phase of the project could



The second phase of the River Terrace waterproofing and repair covers approximately two-thirds of the parking area.

not have occurred without the cooperation we received from everyone involved," said Virgle Coleman, project manager.

Contractor effort

The weather in January did cause a slight delay in Phase I and preparatory work for Phase II, but the contractor, Clark Construction Group (previously known as Hyman Construction), worked on the weekend to ensure that the Phase II area was ready for a mid-January start.

Completion of the River Terrace work is not only necessary, but will result in several improvements:

- a structurally sound Terrace that will safely support

all traffic, most importantly emergency vehicles and parking;

- a basement area below the Terrace that will support office & medical facilities;
- a progression of renovation activities into other areas when tenants are able to occupy the renovated Phase I basement;
- ADA compliant hand-capped access between the River entrance and the parade field;
- and a re-landscaped Terrace that will be restored to historical standards.

Tenant comments

Tenants with questions, comments or complaints regarding safety, noise and construction-related activities should contact the Corps hotline at 693-8938.

New Navy Annex security stations under construction

The somber concrete structure between the Pentagon and Arlington Cemetery is easily recognized as the Navy Annex, but most tenants are probably not aware that the Navy Annex is a part of the Pentagon Reservation.

The Navy Annex, like the Pentagon, is also over 50 years old. While its security stations are not quite as old, they have outlived their usefulness and are outdated for today's security needs.

In order to meet the Pentagon's security level, the old stations are being replaced with new security stations that support current security functions.

Kobane Inc., the contractor, began construction this month on new security stations, fencing and lighting with security cameras, in the parking lot that borders Columbia Pike and Joyce Street.

According to Allen Foreman, project engineer, personnel safety features and improved



The current security stations at the Navy Annex are outdated.

appearance have been incorporated into the security design. A total of four new stations will be constructed.

The main security station, located on Southgate Road (Post 1), will have separate vehicular and pedestrian control points.

The vehicular control point must remain a single lane entry point for security purposes, but the vehicular exit will be expanded to two lanes to alleviate the congestion of departing traffic.

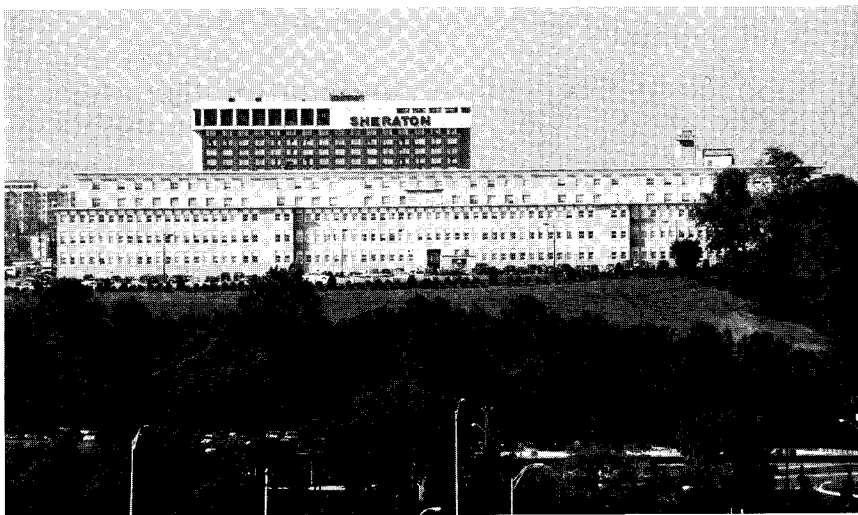
The pedestrian control point on Southgate Road will be the main entrance for visitors, and will include a check-point for employees.

The pedestrian entrance on Columbia Pike (Post 4) will be replaced with a new station, and the delivery/truck station (Post 3) will not only be replaced, but include expanded lanes.

Access through the new security stations will be controlled by "access control IDs," identification cards with a magnetically imprinted access code on the back side.

The employee "swipes" the card through the card reader when entering and exiting the facility. The card is read by the computer monitoring system which grants access through an optical turnstile.

The vehicular control points will operate on the same principle, but with an "access control card" to operate the traffic arms. Vehicle entrances/exits will include vehicle crash barriers or gates to complete the security improvements.



Although separated from the Pentagon by Route 27 and Columbia Pike, the Navy Annex is part of the Pentagon Reservation.

Basement renovation has 'grid' but not 'lock'

by Greg Ruggles
URS Consultants

The first phase of the basement is currently undergoing build-out (or fit-out). Build-out is the "building" of office areas as determined by the tenants' requirements.

This includes placing wall partitions to accommodate office areas (i.e., number of offices and number of employees to each office), lighting, duct work and other office necessities.

Build-out for the renovated basement is requiring some additional touches based on the tenants who will occupy this space.

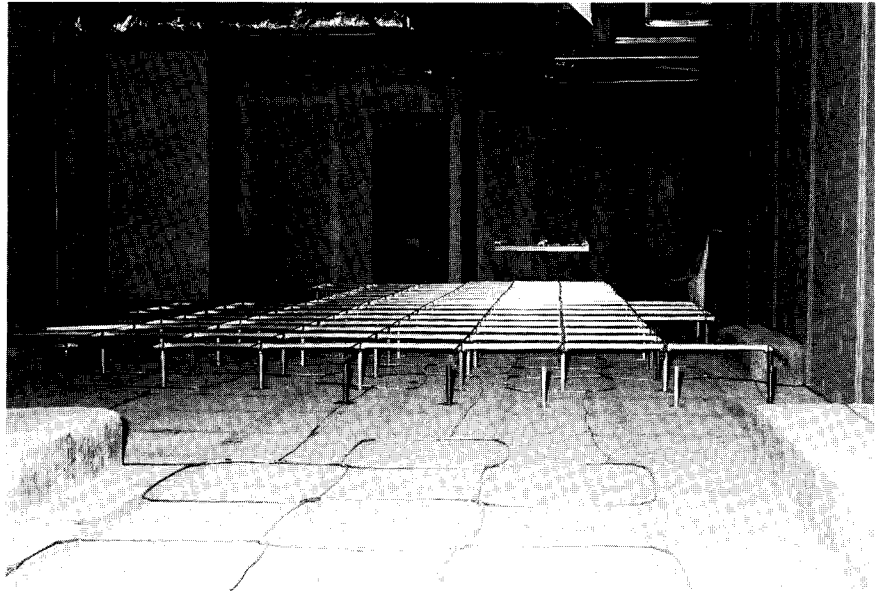
Computer intensive

The command centers and agencies relocating into Phase I of the basement will bring with them hundreds of computers and computer-based pieces of equipment, so raised floors for the computer equipment is needed.

The raised floors are being placed over the concrete slab. But another crucial addition must be made so that occupants in this newly renovated area do not suddenly experience glitches, garbled screens, mysteriously lost data, etc., on their computers.

Grounding

The entire area must be "grounded" to prevent the high frequency noise generated by a large amount of computer equipment. The high frequency noise can cause area-wide electrical interference.



The honeycomb-looking ground grid lies directly on the concrete slab and is covered by raised-flooring.

The grounding scheme for the Phase I basement area is based on Federal Information Processing Standards 94 that recommends treating the grounding of a large scale computer facility like a small computer.

A small computer has its circuitry installed on a metal plate that acts as a grounding plane for digital circuitry setting inside the computer.

Same principle

The same principle applies to the extensive computer equipment placed on a raised floor. Instead of a metal plate, bare copper is prefabricated into two-foot by two-foot shapes that resemble honeycombs.

The "honeycombs" are laid side-by-side on the concrete floor slab so they resemble floor tile squares, then bound together by special hypress lugs. The special hypress lugs are

needed to ensure that the honeycombs are bonded, and thus act as a single copper grounding plane.

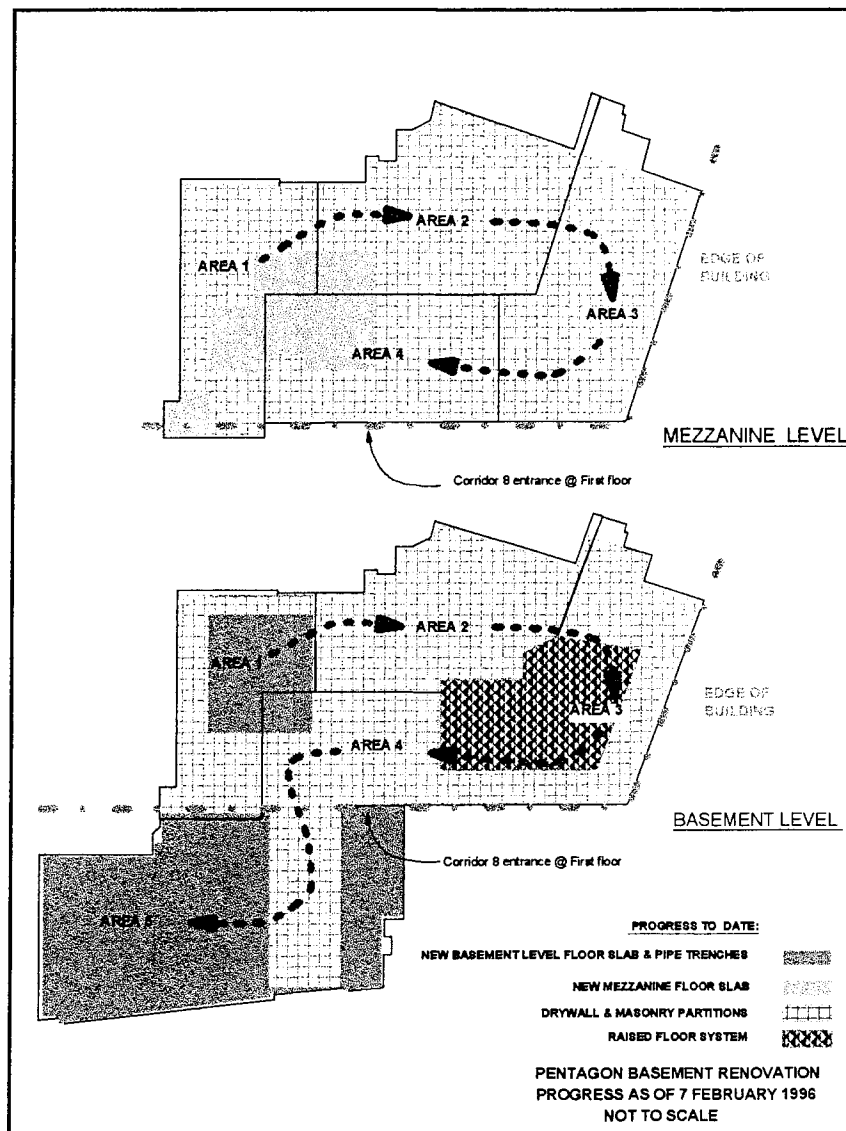
Singleton Electric, the contractor responsible for installing the ground grid, uses a special "tool" consisting of a hydraulic pump and electric motor to compress the lugs.

High tech grids

When the basement grounding "grid" is complete, it will be very similar to grids used by NASA, FAA, and other high tech agencies.

Pentagon renovation began in the basement because readying these computer intensive areas requires considerably more time than build-out of conventional office spaces.

Build-out can mean a simple office space, but in the basement, build-out means ensuring that space meets the Pentagon's twenty-first century needs.



The monthly basement "progress to date" graphic includes the mezzanine and basement level. Work on both levels must be tracked separately because of the large areas and variations in types of construction.

The Renovator is a publication of the U.S. Army Corps of Engineers, Baltimore District, Pentagon Renovation Office. The U.S. Army Corps of Engineers is the design and construction management agent for the Pentagon Renovation Program. *The Renovator* is an unofficial publication authorized under the provisions of AR360-81. Material from this publication may be reproduced without permission. Views and opinions expressed are not necessarily those of the Department of Defense or the Department of the Army.

District Engineer.....Col. Randall R. Inouye
Deputy District Engineer.....Lt. Col. Christopher Boruch
Resident Program Manager.....John Chubb
Public Affairs Specialist & Editor.....Kim Speer

U.S. Army Corps of Engineers, Baltimore District
Pentagon Renovation Office (located in the North Parking Lot)

100 Boundary Channel Dr.

Arlington, Va. 22202-3712

Phone: (703) 693-8938 FAX: (703) 697-6722

E-mail: speerk@pentagon-reno.army.mil